

REMARKS

Claims 27-36 were pending in the application. Claim 27 has been amended. Accordingly, upon entry of this amendment, claims 27-36 will remain pending.

Support for the amendments to claim 27 may be found throughout the specification, including the originally filed claims.

No new matter has been added. Any amendments to and/or cancellation of the claims was done solely to more particularly point out and distinctly claim the subject matter of Applicants' invention in order to expedite the prosecution of the application. Applicants reserve the right to pursue the claims as originally filed in this or a separate application(s).

Elections/Restrictions

Applicants gratefully acknowledge the Examiner's indication that the restriction requirement for SEQ ID NOS:4-6 has been withdrawn and that claims 27-36 and SEQ ID NOS:4-6 are pending in the instant invention.

Specification

The Examiner has stated that the use of several trademarks have been noted in the instant application and that they should "be capitalized wherever it appears and be accompanied by the generic terminology."

Applicants respectfully traverse the foregoing objection to the specification. Applicants respectfully submit that the use of trademarks having definite meaning is permissible in patent applications (see M.P.E.P. §608.1(v)). Applicants submit that every effort has been made to prevent the use of the trademark in any manner which might adversely affect its validity as a trademark. For example, the specification has been amended to identify each trademark by the capitalization of each letter. Moreover, the trademark symbol has been used to identify each mark as a trademark. Accordingly, Applicants respectfully requests reconsideration and withdrawal of the foregoing objection to the specification.

Information Disclosure Statement

The Examiner has stated that “[t]he information disclosure statement filed October 15, 2002 is acknowledged. However, copies of the non-patent literatures cited therein are not found in the instant application. The examiner is making efforts to locate these references; however, resubmission of these documents, if possible, by applicant would facilitate their consideration and would greatly be appreciated by the examiner.”

Applicants respectfully submit that, contrary to the Examiner’s statement, no Information Disclosure Statement was filed in the instant application on October 15, 2002. Applicants respectfully request clarification and confirmation that no Information Disclosure Statement has been considered prior to the date of the instant Amendment and Response.

Applicants are currently submitting an Information Disclosure Statement along with the instant Amendment and Response. Applicants respectfully request consideration of each of the cited references by the Examiner.

Sequence Listing

Applicants respectfully submit that a corrected Sequence Listing is being filed herewith. The corrected Sequence Listing is identical to the original Sequence Listing with the exception of SEQ ID NOS:4, 5, 6, 7, and 8. SEQ ID NOS: 4, 5, 6, 7, and 8 of the corrected Sequence Listing represent the allelic variants of the 5-LO gene, rather than the wild-type sequence. For example, SEQ ID NO:4 has been corrected such that residue 11 has been changed from a “G” to an “A.” SEQ ID NO:5 has been corrected such that residues 11-16 have been deleted. SEQ ID NO:6 has been corrected such that residue 11 has been changed from a guanine “G” to an adenine “A.” SEQ ID NO:7 has been corrected such that residue 11 has been changed from a “G” to an “A”. SEQ ID NO:8 has been corrected such that residue 11 has been changed from a “G” to an “A”.

Support for the revisions to SEQ ID NOS:4, 5, 6, 7, and 8 may be found in the specification, for example, at Table 1. Table 1 lists each sequence as well as the corresponding SEQ ID NO. Table 1 also lists the location and change for each allelic variant of each sequence. Furthermore, additional support for the corrections to SEQ ID NOS: 4, 5, 6, 7, and 8 may be found in the specification at page 15, line 14 through page 16, line 29. *No new matter has been added.*

Rejection of Claims 27-36 Under 35 U.S.C. 112, Second Paragraph

The Examiner has rejected claims 27-36 under 35 U.S.C. §112, second paragraph as being “indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.” In particular, the Examiner is of the opinion that “claims 27-36 are indefinite at “5-LO” in claims 27 because abbreviations often have more than one meaning in the art.”

Applicants respectfully traverse the foregoing rejection. However, in the interest of expediting prosecution of the instant application, claim 27 has been amended to recite the full name of the 5-LO abbreviation, as supported by the specification at, for example, page 1, line 11. Accordingly, Applicants respectfully request reconsideration and withdrawal of the foregoing rejection.

Rejection of Claims 27-31, 35, and 36 Under 35 U.S.C. §102(b)

The Examiner has rejected claims 27-31, 35, and 36 under 35 U.S.C. §102(b), as being anticipated by Drazen, et al. (WO 97/42347, 13 November 1997). In particular, the Examiner is of the opinion that “Drazen et al. teach a method for determining the identity of an allelic variant of 5-lipoxygenase gene (5-LO gene) in a nucleic acid obtained from a patient...wherein the allelic variant comprises one or more nucleotide sequences selected from the group consisting of SEQ ID NO:4 (see sequence alignment attached to reference and table 1) and SEQ ID NO:6 (see sequence alignment attached to reference and table 1) or complement thereof, thereby determining the identity of the allelic variant.”

Applicants traverse the foregoing rejection for the following reasons. Claim 27 is directed to a method for determining the identity of an allelic variant of a 5-LO gene in a nucleic acid obtained from a patient, wherein the sample comprises a 5-lipoxygenase (5-LO) gene sequence, comprising contacting a sample nucleic acid from the patient with a probe or primer having a sequence which is complementary to a 5-LO gene sequence, wherein the allelic variant comprises one or more nucleotide sequences selected from the group consisting of those set forth in SEQ ID NO: 4, SEQ ID NO:5, and SEQ ID NO:6, or the complements thereof.

For a prior art reference to anticipate a claimed invention, the prior art must teach each and every element of the claimed invention. *Lewmar Marine v. Barient* 827 F.2d 744, 3 USPQ2d 1766 (Fed. Cir. 1987). As set forth above, Applicants respectfully submit that a

corrected Sequence Listing is being filed herewith. SEQ ID NOs:4 and 6, as set forth in the corrected Sequence Listing, are not disclosed in Drazen, et al. SEQ ID NOs:4 and 6 each contain a single nucleotide polymorphism (SNP), e.g., a change from a “G” to an “A” at position 11, whereas the sequences disclosed in Drazen et al. do not. Therefore, Drazen et al. fail to teach or suggest each and every element of the claimed methods of the invention. Accordingly, Applicants respectfully request reconsideration and withdrawal of the foregoing rejection.

Rejection of Claims 32-34 Under 35 U.S.C. §102/103

The Examiner has rejected claims 32-34 under 35 U.S.C. §102(b) as being “anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Drazen, et al.”

Applicants respectfully traverse the foregoing rejection. As set forth above, Drazen, et al. does not teach or suggest SEQ ID NOs:4 and 6, or methods for determining the identity of an allelic variant of a 5-LO gene in a nucleic acid obtained from a patient, wherein the sample comprises a 5-lipoxygenase (5-LO) gene sequence, comprising contacting a sample nucleic acid from the patient with a probe or primer having a sequence which is complementary to a 5-LO gene sequence, wherein the allelic variant comprises one or more nucleotide sequences selected from the group consisting of those set forth in SEQ ID NO: 4, SEQ ID NO:5, and SEQ ID NO:6, or the complements thereof. Claims 32-34 are dependent upon claim 27 and therefore contain the limitations of claim 27. In view of the foregoing, Applicants respectfully submit that Drazen, et al. fail to teach or suggest the methods of claims 32-34. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw rejection of the pending claims under 35 U.S.C. §102/103.

CONCLUSION

If a telephone conversation with Applicant's Attorney would expedite the prosecution of the above-identified application, the Examiner is urged to call the undersigned at (617) 227-7400.

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Respectfully submitted,

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